

What is claimed is:

1. A slide rail system suitable for use on a tracked vehicle having a chassis, a front drive axle, and an endless track, the system comprising a pair of substantially spaced-apart parallel elongated slide members, the pair being defined by a first slide member and a second slide member, each slide member having a forward end, a rear end and a bottom portion being suitable for engaging with the endless track; the forward end of each slide member suitable for connection to at least one of the chassis of the tracked vehicle and the front drive axle of the tracked vehicle via a linkage.
2. The slide rail system of claim 1, wherein each slide member comprises a front slide rail and a rear slide rail, each rail having a forward end, a rear end and a bottom portion suitable for engaging the endless track; the forward end of the rear slide rail of the first slide member being pivotally connected to the rear end of the front slide rail of the first slide member; and the forward end of the rear slide rail of the second slide member being pivotally connected to the rear end of the front slide rail of the second slide member.
3. The slide rail system of claim 2, wherein each slide rail has a length, and a ratio of the length of each front slide rail to the length of each rear slide rail is in a range of 50% to 100%.

4. The slide rail system of claim 2, wherein the linkage further comprising a first linkage and a second linkage, each linkage having a first end and a second end; and wherein the forward end of the front slide rail of the first slide member is attached to the first end of the first linkage; the forward end of the front slide rail of the second slide member is attached to the first end of the second linkage; and the second end of each linkage is suitable for attachment to one of the front drive axle of the tacked vehicle and the chassis of the tracked vehicle.

5. The slide rail system of claim 4, wherein the forward end of the front slide rail of the first slide member is pivotally attached to the first end of the first linkage; and the forward end of the front slide rail of the second slide member is pivotally attached to the first end of the second linkage.

6. A snowmobile, comprising:

- a chassis;
- an engine disposed on the chassis;
- at least one ski disposed on the chassis;
- a steering column operatively connected to the at least one ski for steering the snowmobile;
- an endless track disposed below the chassis and being operatively connected to the engine via a front drive axle for propelling the snowmobile; and
- a pair of substantially parallel elongated slide members, each slide member having a forward end, a rear end and a bottom portion engaging the endless track,

the forward end of each slide member being suitable for connection to at least one of the chassis of the tracked vehicle and the front drive axle of the tracked vehicle via a linkage.

7. The snowmobile of claim 6, wherein each slide member comprises a front slide rail and a rear slide rail, each rail having a forward end, a rear end and a bottom portion suitable for engaging the endless track; the forward end of the rear slide rail of the first slide member being pivotally connected to the rear end of the front slide rail of the first slide member; and the forward end of the rear slide rail of the second slide member being pivotally connected to the rear end of the front slide rail of the second slide member.

8. The snowmobile of claim 7, wherein each slide rail has a length, and a ratio of the length of each front slide rail to the length of each rear slide rail is in a range of 50% to 100%.

9. The snowmobile of claim 7, wherein the linkage further comprising a first linkage and a second linkage, each linkage having a first end and a second end; and wherein the forward end of the front slide rail of the first slide member is attached to the first end of the first linkage; the forward end of the front slide rail of the second slide member is attached to the first end of the second linkage; and the second end of each linkage is suitable for attachment to one of the front drive axle of the tracked vehicle and the chassis of the tracked vehicle.

10. The snowmobile of claim 9, wherein the forward end of the front slide rail of the first slide member is pivotally attached to the first end of the first linkage; and the forward end of the front slide rail of the second slide member is pivotally attached to the first end of the second linkage.

11. A snowmobile, comprising:

- a chassis;

- an engine disposed on the chassis;

- at least one ski disposed on the chassis;

- a steering column operatively connected to the at least one ski for steering the snowmobile;

- an endless track disposed below the chassis and being operatively connected to the engine via a front drive axle for propelling the snowmobile;

- a pair of substantially parallel elongated slide members, each slide member having a forward end, a rear end and a bottom portion engaging the endless track;

- a rear suspension arm having a first end pivotally connected to the chassis and a second end pivotally connected to the rear slide rails; and

- an hydraulic mechanism having a first end connected to the rear suspension arm and a second end connected to the slide rails,

- wherein the hydraulic mechanism controls the rate at which the rear suspension arm rotates with respect to the slide rail.